

IN THE CLAIMS

Claim 1. (Currently Amended) A Process for producing hydrogen and a hydroprocessed product from a hydrocarbonaceous feedstock, comprising subjecting the hydrocarbonaceous feedstock to a catalytic hydrocracking treatment using hydrogen which has been at least partly produced from hydrocracked feedstock and subjecting at least part of the hydrocracked feedstock, after having subjected it to a separation treatment in the event that hydroprocessed product is to be recovered, to a treatment to produce hydrogen in a single operation which hydrogen is at least partly recovered as product, ~~characterized in that~~ the amount of hydrogen produced by the process exceeds the amount of hydrogen needed in the process, wherein part or all of the non-recovered material from the catalytic hydrocracking treatment is subjected to a catalytic oxidation process which produces hydrogen and carbon (di)oxide.

Claim 2. (Previously Presented) The process of claim 1, in which use is made of feedstocks ranging from those having an initial boiling point of about ambient to those having a final boiling point of about 650°C.

Claim 3. (Previously Presented) The process of claim 2, in which use is made of feedstocks having a boiling point range such that their 90% boiling point lies in the range between about 400°C and about 600°C.

Claim 4. (Previously Presented) The process of claim 1, in which use is made of feedstocks having a sulphur content of not more than 5 %wt.

Claim 5. (Previously Presented) The process of claim 1, in which a hydrocarbonaceous feedstock is used containing between about 5 %wt and about 40 %wt of material having a boiling point range which is the same or higher than the boiling point range of the hydroprocessed product to be recovered.

Claim 6. (Previously Presented) The process of claim 1, in which kerosene and/or gas oil are recovered as hydro-processed products from the hydrocracked feedstock.

Claim 7 (Canceled).

Claim 8. (Currently Amended) The process of claim 7₁, in which the catalytic oxidation process comprises a catalytic partial oxidation step.

Claim 9 (Canceled).

Claim 10. (Previously Presented) The process of claim 1, in which hydrogen sulphide generated by the hydrocracking treatment is converted into elemental sulphur by conventional means.

Claim 11. (Previously Presented) The process of claim 1, in which use is made of a hydrocracking catalyst system capable of converting at least 50 %wt of the material, having a boiling point range which is higher than the boiling point range of the hydroprocessed product.

Claim 12. (Previously Presented) The process of claim 11, in which use is made of a hydrocracking catalyst containing zeolite beta as active component.

Claim 13. (Previously Presented) The process of claim 12, in which the zeolite beta-based catalyst is capable of converting at least 90 %wt of the fraction to be treated to obtain the hydroprocessed product.

Claim 14. (Previously Presented) The process of claim 11, in which the hydrocracking treatment is carried out at a temperature between about 200 and about 550 °C.

Claim 15. (Previously Presented) The process of claim 11, in which the hydrocracking treatment is carried out at a pressure up to about 400 atmospheres.

Claim 16. (Currently Amended) The process of claim 7₁, in which the hydrogen generated by the catalytic oxidation step has been produced at least partly from hydrocarbons containing at most 4 carbon atoms present in the hydrocarbonaceous feedstock or as produced during the hydrocracking treatment.

Claim 17. (Previously Presented) The process of claim 16, in which the feedstock to the catalytic oxidation step consists of hydrocarbons having about 4 or less carbon atoms.

Claim 18. (Previously Presented) The process of claim 1, in which hydrogen is separated off from the hydrocracked feedstock and from the hydroprocessed product if the latter is not to be recovered prior to the treatment to produce hydrogen.

Claim 19. (Previously Presented) The process of claim 1, in which use is made of feedstocks having a sulphur content of below 3 %wt.

Claim 20. (Currently Amended) The process of claim ~~7~~1, in which the catalytic oxidation process comprises a watergas-shift step.

Claim 21. (Currently Amended) The process of claim ~~4~~20, in which hydrogen is produced from no feedstocks other than the hydrocarbonaceous feedstock and water used in the watergas-shift step.

Claim 22. (Previously Presented) The process of claim 1, in which use is made of a hydrocracking catalyst system capable of converting at least 65 %wt of the material, having a boiling point range which is higher than the boiling point range of the hydroprocessed product.

Claim 23. (Previously Presented) The process of claim 11, in which the hydrocracking treatment is carried out at a temperature between about 250°C and about 450 °C.

Claim 24. (Previously Presented) The process of claim 11, in which the hydrocracking treatment is carried out at a pressure between about 10 and about 200 atmospheres.